

INSTRUCTIONS TO SERVICE AMADAXTREME SHOCKS 2.0 REMOTE RES AUSTRALIAN VERSION

PART 1 - SERVICE THE RESERVOIR

1. Prior to cleaning the shock check for any leaks or signs of damage to the res, lines, bushes and main body, take note of any leaks or damage. Clean the shock down of any dirt, grease or grime; it is very important to use an extremely clean area to work on the shock.

2. If Nitrogen pressure is present in your reservoir just release the pressure, if there is no pressure completely remove the Schrader Valve as this is a indication you should replace the schrader valve as it may be leaking or damaged. (image 1)

3. Use a 3mm Allen key to remove the end cap on the reservoir. (image 2)

4. Using a seal pic carefully remove the seal behind the end cap, discard this seal. (image 3)

4A - newer style res

4B - push the end cap in with your fingers to remove the circlip

4C - use a valve remover to gently pull out the end cap



5. Using both hands depress the alloy retainer down enough to remove the circlip with a seal pic. (image 4)

6. Remove the Circlip holding the high pressure line in place, use Circlip removers to perform this, be careful not to lose the Circlip. NOTE: there is 2 different style of fittings, a square block or a round fitting. (image 5)

7. Using filtered clean / dry compressed air it is now necessary to blow out the floating piston from the reservoir, this is done by lining up an airline fitting with the inside hole of the high pressure line and covering the fitting with a rag tightly, depress the airline nozzle to "POP" out the piston, be careful as the piston will come out so do not have the reservoir facing any person. (Image 6 and 7)



8. Carefully layout all the parts of the reservoir setup and clean any dirt, grime or dust from the parts. (image 8)

9. Replace all 3 O-rings and the wear band with new parts supplied in the rebuild kit, do not put any of the parts together until later in the rebuild. (image 9)



DISASSEMBLY OF THE MAIN SHOCK BODY

10. Check that there are no visible oil leaks around the body and fittings .
11. Completely clean down the shock before proceeding.
12. Remove res if not done as described in the first section of these instructions.
13. Using a 3mm Allen key remove the 3 cap screws in the neck bush assembly (image 10)

14. Once you have removed the 3 cap screws lift up the top cap and push it to the top of the shock out of the way, also move the red seal retainer up out of the way. (Image 11)

15. You will now need to use both hands and using your fingers press down the seal housing just enough to expose the Circlip, if you cannot push this down with your fingers very carefully use a pin punch and a hammer but use extreme caution doing this as damage to the seal assembly may allow the seals to leak pressure. Remove the Circlip.

16. Now that you have the circlip removed apply grease to the inside of the shock body where the circlip was . Use a seal pic and pick out the blue seal then have a friend give you assistance in this stage, with the shock body held in a vise **by the lower fitting** proceed to swiftly hit upwards on the shaft with both hands, this will allow the neck bush assembly and piston assembly to be removed, it is possible to pull the assembly out but usually this procedure works better. Your friend may need to assist in holding the bottom of the shaft or shock body as you try to hit it upwards. (Image 13)

17. These 2 images show the exact layout of the shaft, seals and piston. (image 14 and 15)

18. Carefully inspect the inside of the shock case and all the components of the shock assembly. All O-Rings and the wear band will be replaced but it is worth taking note of any damage to them for future problem solving if the same damage occurs at a later date. Remove both O-Rings on the high pressure line fitting; be extremely careful not to damage the new seals when fitting them on. (image 16)

19. The following steps are in regards to only servicing the shock, if you intend on re valving the shock you must read the re valve instructions. Check that the pin or eye fitting is properly tightened, if it appears to be loose it is recommended to apply locktite and properly tighten before proceeding further. Next remove the nut that holds the piston on the shaft, if you have a shaft that has been flared you must finish or grind the flared shaft flush to the nut before proceeding, **DO NOT ATTEMPT TO UNDO THE NUT WITHOUT GRINDING THE FLARE.** To undo the piston nut you must pull up the rubber bump and you will see where to put a thin spanner to hold the shock shaft, under no circumstances put the chrome shaft in the vise jaws. Assuming that your shaft has the flare and you have now ground it flush you can now remove the nut, before proceeding any further you must now clean any damaged threads, this is extremely important. If you did not have a flared shaft just proceed to remove the nut. Once the nut is removed and the thread is clean proceed to remove all the parts from the shaft and lay them out in order on a clean bench.



20. Carefully check the shock shaft for any damage, there must be no dints or scratches, if you have a dint in the shaft you can very carefully use a fine oilstone to smooth out the dint. If a dint has a raised edge it will cut the seal and make the shock leak straight away. Now that you have the piston off, all the parts can be removed off the shaft and you can proceed replace the seals in the correct order. Using a vise or similar object place the neck bush assembly on the Vise and carefully tap out the seal with a small pin punch, replace the seal with the new seal that is supplied, make sure you apply some shock oil to the Sealing areas. (image 19)



21. Using a pin punch hit out the rod guide and carefully tap in a new guide, be extremely careful not to scratch the new guide. A socket placed over the rod guide or a peice of tube can assist in pressing the guide back in place . Carefully replace the O-ring (Images 20 /21/ 22)



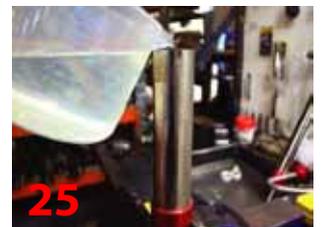
22. Once you have done the rod guide push on the neck bush, blue seal, rod guide and the piston assembly in reverse of the way they come of the shaft. Apply Lock tight to the thread and tighten the nut to 30 NM for the 10mm nut or if your shock uses a 12mm nut tighten to 50 NM. With all the O-Rings and seals replaced with new items it is now time to replace the High Pressure line.



23. With the 2 x O-rings replaced on the fitting on the shock body , apply some oil to the o-rings and you can now very gently push the high pressure line back on to the shock body, be extremely Careful not to cut the O-ring while pushing the fitting together. (Image 24)



24. Have a friend assist you and hold the shock higher than the reservoir, fill the reservoir 5mm from the top with the recommended oil making sure not to create any more bubbles than possible, Pour the oil down the side of the reservoir body to stop bubbles forming. If you get bubbles let them dissipate before proceeding further. Lubricate the floating piston with oil and carefully push into the res with the dished out side facing the oil side. (Do not worry about the air beneath the piston yet) Be extremely careful not to damage the seal or the wear band. (Image 25 and 26)



25. Carefully put the shock body in a vise NOT ON THE CASE but on the eye or pin fitting and gently hang the res facing down below the shock body , doing this will now allow any air bubbles to rise up the shock case and escape. Use a handle of a hammer or any such item that will not damage the inside of the reservoir and push the piston up until you measure 170mm as pictured for remote res shocks , if you have 14-18" coilovers the measurement will be 190 mm. (Image 27)



26. Now that the reservoir and high pressure line are free from air bubbles you can start to fill the shock with oil, slowly fill the shock to 50mm below the top of the shock. Wait for any bubbles to raise up before proceeding further. (Image 28)



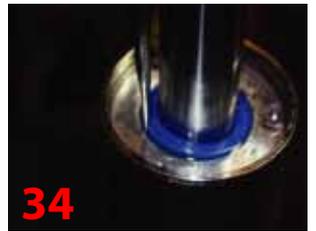
27. Now that you have the oil in the shock to 40mm from the top you can carefully fit the shock shaft back into the case of the shock. Using your fingers compress the wear band in so it will easily fit into the case of the shock, now slowly push the shock shaft down into the body, If you do this too fast you will push the reservoir piston and you will have to do the process again, once the piston is beneath the oil you must start to rotate the shaft and slightly jiggle the shaft from side to side, this will expel any air bubbles below the shim pack, keep pushing the shaft down slowly until no more air bubbles are coming up. You want to try and have the oil level around 40mm from the top of the shock body to perform the next step, if the oil is lower than 40 mm keep slowly pushing the shaft in until the oil level comes up enough; if the oil level is too high (less than 40mm) pull the shaft out slowly until the level is close to 40mm. (image 29 and 30)



28. Make sure the Blue Seal is NOT located in the neck bush for this next step. Now that you have the oil close to 40mm from the top of the body you can apply some rubber grease to the O-ring of the neck bush assembly, gently push down and at the same time twist the neck bush so it pushes down past the Circlip groove, snap in the O-ring, don't push the neck bush any further than is needed. With the Circlip in place gently push down on the shaft of the shock to expel the remaining air bubbles, you will see the air bubbles rise pass the shaft and the neck bush, once all the bubbles have stopped proceed further. (image 31 ,32 , 33)



29. Use your fingers to start pushing in the blue seal, after about half way you will need the assistance of your seal pick and carefully press in the seal, air and oil will be trapped under the seal so the very last part of the seal needs to have the seal pick gently pushed in between the side of the seal and the housing to release the last bit of excess oil and air. (Image 34)



30. Now that you have the seal in place use compress air and blow out the 3 holes in the neck bush assembly, apply a very small amount of lock tight to the 3 bolts and place the cap assembly back in position, evenly tighten the cap in place and firmly tighten the cap screws, (remember they are only tightening in alloy so don't over tighten) (Image 35)



31. Replace the reservoir alloy retainer back into the reservoir and snap in the Circlip, with the O-ring in place apply a small amount of grease around the seal. Using compress air blow out the 3 holes and apply a very small amount of lock tight onto the 3 cap screws. (Image 36)



32. Evenly tighten the end cap in place and refit the Schrader valve if it was previously removed. (Image 37)



33. If the bushes need replacing use a flat screw driver to remove the eye style bushes, silicon spray or soapy water can help push in the new bushes if they are tight, only use a very small amount of silicon spray or soapy water if needed, be very careful as the bush may "pop" out if you use you much. (Images 38 / 39 / 40)



34. Congratulations you have now just rebuilt your first Remote reservoir Shock. All that is needed now is to gas the shock with nitrogen gas. There is no right or wrong for gas pressures, you will find the higher the pressure the harder the ride may feel but you will have less shock fade on long hard drives, the lower the pressure is the softer the ride becomes, it is recommended to be around 100-200psi, most common pressure is around the 120psi when the shock leaves the factory. Please be aware that raising or lowering pressure to suit your "ride" is not the correct way to do it. There is no substitute for the correct valving and maintaining the gas pressures in a reasonable range. If you are using the shocks on a race truck I would recommend around the 200PSI and tourers and everyday 4wd's around 120 psi. Most Valving pressures are done are around 120 psi to get the shim packs correct ,Remember without the proper gas pressure check tool you will lose anywhere up to 20 psi just checking the shocks , These can be purchased through Superior Engineering as well as any nitrogen filling equipment.



Thank you for purchasing Superior Engineering Products.







